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International

The International
Incandescent
ydro Carbon Light

#2057

THE INTERNATIONAL INCANDESCENT HYDRO CARBON LIGHT

THE MOST ECONOMICAL METHOD OF ILLUMINATION KNOWN

An ideal incandescent illuminant
equalling the electric Arc
and much cheaper

Adapted to all requirements of
general illumination

◆

GENERAL OFFICES
OF THE
INTERNATIONAL INCANDESCENT LIGHT CO.
724 CHESTNUT STREET
PHILADELPHIA, PA.

PRESS OF
HATHAWAY & BROTHERS
PHILADELPHIA

ARTIFICIAL LIGHT

OF all the striking features that mark the industrial greatness of the nineteenth century, the mechanical production of artificial light unquestionably stands first. It is a barometer that indicates our progress, for in such degree as it has been made a ready and efficient servant, so has our commercial life expanded.

The intelligent transmission and application of electrical energy have chiefly contributed to this result, but where small centers of high intensity are utilized, as in the electric arc, the accepted methods of application for commercial lighting are in a measure disappointing in general results, as we still find the inventor hard at work fashioning devices by which the objectionable glare may be made more endurable to the eye, and the diffusion of light obtained without excessive waste of mechanical energy.

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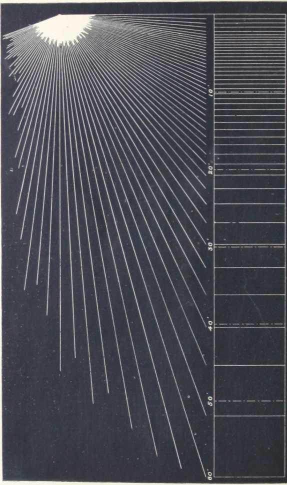
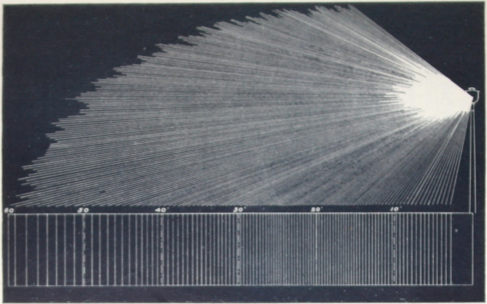
SUBURBAN ILLUMINATION.

EXCELLENCE Of all the high power light sources the "incandescent glow" is recognized as affording the highest standard of illuminating efficiency, and it is destined in time to supersede all the old forms of arc lamps. It is universal in its application, and were it not for the difficulties inherent in established methods, where electric energy is used, and the serious economic objections which exist, its commercial extension would spread in a marvelous degree.

It was the recognition of these facts that led the engineers of the INTERNATIONAL INCANDESCENT LIGHT COMPANY into a long series of experiments with Hydro-Carbons—a more easily governed source of energy—and after years of patient research and costly experimental work, the result is a splendid consummation, establishing a new standard of economy in the production of a high power light, in which are embodied the vital elements of the ideal outfit.

THE INTERNATIONAL LIGHT IN PHOTOGRAPHY





Distribution of light from an 'International' Incandescent Lamp with one mantle

SIMPLICITY

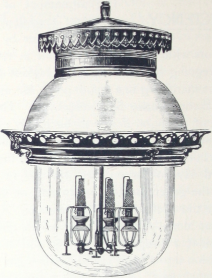
The system is exceedingly simple. The fuel, preferably Gasoline, is contained in a steel tank under a charge of compressed air ; a line of seamless tubing carries the liquid to a valve at the base of the generator, into which it is sprayed, and where vaporization is effected. After the process of gasification is complete, the super-heated gas is ejected from an automatically controlled gasometer into a mixing chamber or cylinder, wherein a nicely balanced atmospheric saturation and oxygenation is obtained ; the highly volitalized element rising to the flame head of the cylinder, which is crowned with a mantle or hood, converts the latter into intense incandescence, and attains a brilliancy unapproached by any artificial light except the electric arc.

The mechanical application of the principles involved in the International System, differs from all other incandescent light producing devices. It stands unique in adaptability to all requirements for general illumination in economy of operation and perfect control of the quality and quantity of light.

EFFICIENCY

The attainment of these points of excellence has been striven for by many inventors with varying success, but in reaching the foregoing combination in the highest degree, without sacrificing one good point for another, many theories have been disproved. The very nature of the light, if it is to be highly efficient and constant in its operation, requires absolute conversion of every atom of the liquid fuel into a fixed Hydro-Carbon gas, with no residuum left in the generator, tending to clog or entirely destroy the usefulness of the system. Refined Gasoline alone, of the parafine series, possesses the valuable property of ready and absolute conversion into a pure Hydro-Carbon gas, which when mechanically treated with a properly proportioned admixture of air, develops remarkable kinetic energy.

It being a recognized fact that a wide difference exists between a 1200 candle power arc light and its candle power of illumination, the comparative commercial value of the International Incandescent Light presents an object lesson not only of scientific interest, *but also of financial importance.*



Good illumination requires that the rays of light originating at a central source be uniformly diffused over a given area in order to make all objects easily visible, and that in looking at the objects the eye should not be dazzled by the glare from the source itself. To accomplish this, to some

extent, ground glass or porcelain globes have been the only practical means used thus far in connection with the electric arc, but as this medium is excessively wasteful of light through absorption, the candle power of illumination rarely exceeds 50 per cent. of the candle power of the naked arc, being a loss of one half its illuminating efficiency notwithstanding its relative high candle power.

INTENSITY

The International Incandescent Light has a standard photometer reading of 650 candle power, and as its soft brilliancy possesses the desirable quality of having enough of the orange and red rays to make it identical with day light, diffusing globes are unnecessary, and its maximum luminous efficiency is available for general illumination.

ECONOMY

The International System presents a remarkable comparison of actual cost per diem in producing a given illumination during a working period of twelve hours daily throughout the year as shown below.

Direct Current Electric Arc,	cost	$ .40
Electric Incandescent,	"	3.24
Gas "	"	.45
International	"	*.10*

This unparalleled low cost of maintenance, covers approximately all charges such as fuel, mantles, attendance and interest on plant.

ADAPTABILITY

There is almost an endless number of ways in which the International Incandescent System may be applied to meet requirements or existing conditions in city or suburban lighting, or in the practical illumination of manufacturing or municipal buildings, public halls, or all large structures, where the superficial area is such as to admit of high power light service.

The flexibility of the mechanical adjustment will admit of a wide range of light units per lamp, filling requirements from 600 to 1800 candle power, (which is within the compass of an electric arc lamp), with the added advantage that each light is a complete plant within itself, permitting a subsequent installation of any designated number of lights at will.

The International Incandescent Light Company, will, upon application submit proposals for city, town or suburban lighting, guaranteeing absolute perfection of service. The equipment designated will include its standard iron cylinder post, tank, tubing and artistically designed lantern and burner fixtures.

The Appliances and Fixtures
used by
THE INTERNATIONAL INCANDESCENT
LIGHT COMPANY

are protected by various United States and foreign patents and this Company guarantees, to all users of its lamps and appliances, absolute immunity from liability of damages from patent suits of any character.